**Name: Shoaib Sarwar**

**CMS Id: 111416**

**Introduction:**

The lab is about designing an online reservation system for restaurants. The requirements of the system are given in the lab. The administration uses the system to ensure optimal resource (servers, tables, time) allocation for any guests that apply for the reservations. The staff and items menu are given and requirements about how to allocate tables, or cancel reservation are given, we only have to implement these requirements in our application. The restaurant prioritizes large parties and will allow the parties booking the extra-large table to set their own preferred time-limit for booking the table, without going over restaurant opening timings. For all other tables, the restaurant allocates time; ensuring maximum bookings, while giving enough time for each party to enjoy their food.

**Approaches:**

The given application is implemented in **java** using NetBeans platform. The task is divided into different classes and all the classes are used in one main class.

**How to Run:**

The system consists of 4 java files, which are based on the classes of the system. The classes are reservation, table, customers. All the functions like add table, remove table are in table class, this class also uses array list. Customer class caters for the guests and in reservation class we are given the requirements for reserving a table.

**Github Link:**

**https://github.com/shobii128/lab3**